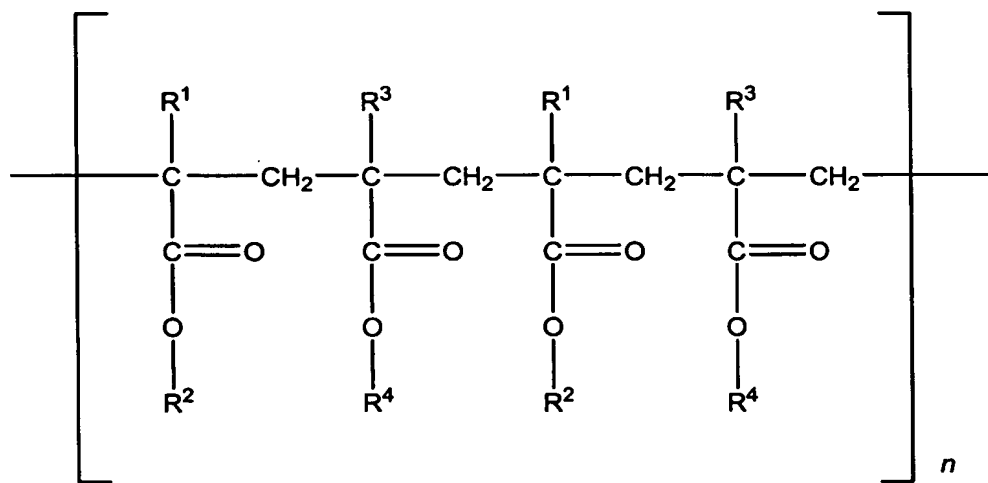


**WE CLAIM:**

- 1 1. A taste-masked pharmaceutical dosage form comprising one or more drugs and  
2 one or more cationic polymers synthesized from dimethylaminoethyl methacrylate  
3 and neutral methacrylic acid esters, wherein the wt/wt ratio of the drug to polymer  
4 is less than about one to two.
- 1 2. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 wt/wt ratio of the drug to polymer is less than approximately 1:1.7.
- 1 3. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 wt/wt ratio of the drug to polymer is less than approximately 1:1.5.
- 1 4. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 drug comprises one or more of H<sub>2</sub> receptor antagonists, antibiotics, analgesics,  
3 cardiovascular agents, peptides or proteins, hormones, anti-migraine agents, anti-  
4 coagulant agents, anti-emetic agents, anti-hypertensive agents, narcotic  
5 antagonists, chelating agents, anti-anginal agents, chemotherapeutic agents,  
6 sedatives, anti-neoplastics, prostaglandins, drugs for erectile dysfunction, drugs  
7 acting on central nervous system, anti-diarrhoeal and anti-diuretic agents.
- 1 5. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 drug comprises one or more of nizatidine, cimetidine, ranitidine, famotidine,  
3 roxatidine, etinidine, lupitidine, nifentidine, niperitone, sulfotidine, tuvatidine,  
4 zaltidine, erythromycin, penicillin, ampicillin, roxithromycin, clarithromycin,  
5 psyllium, ciprofloxacin, theophylline, nifedipine, prednisone, prednisolone,  
6 ketoprofen, acetaminophen, ibuprofen, dexibuprofen lysinate, flurbiprofen,  
7 naproxen, codeine, morphine, sodium diclofenac, acetylsalicylic acid, caffeine,  
8 pseudoephedrine, phenylpropanolamine, diphenhydramine, chlorpheniramine,  
9 dextromethorphan, berberine, mefenamic acid, flufenamic acid, astemizole,  
10 terfenadine, phenytoin, guaifenesin, N-acetylprocainamide HCl and  
11 pharmaceutically acceptable salts or derivatives thereof.
- 1 6. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 drug comprises one more unpleasant tasting drugs.

- 1 7. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 drug comprises a low dose drug.
- 1 8. The taste masked pharmaceutical dosage form according to claim 7 wherein the  
2 low dose drug comprises one or more of enalapril, lorazepam, zolmitriptan,  
3 domperidon, selegiline, ondansetron, mirtazepine, hyosyamine sulphate,  
4 risperidone, citalopram, olanzapine, rizatriptan, piroxicam, desloratadine,  
5 cetirizine, loperamide, sildenafil, topiramate, and pharmaceutically acceptable salts  
6 or derivatives thereof.
- 1 9. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 cationic polymer includes a dimethylaminoethyl group.
- 1 10. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 cationic polymer has the following formula:



3 where:  $R^1 = R^3 = \text{CH}_3$

4  $R^2 = \text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$

5  $R^4 = \text{CH}_3, \text{C}_4\text{H}_9.$

- 1 11. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 cationic polymer comprises a polymers commercially available as Eudragit®.
- 1 12. The taste masked pharmaceutical dosage form according to claim 11 wherein the  
2 Eudragit® comprises one or both of Eudragit® E-100 and Eudragit® EPO.

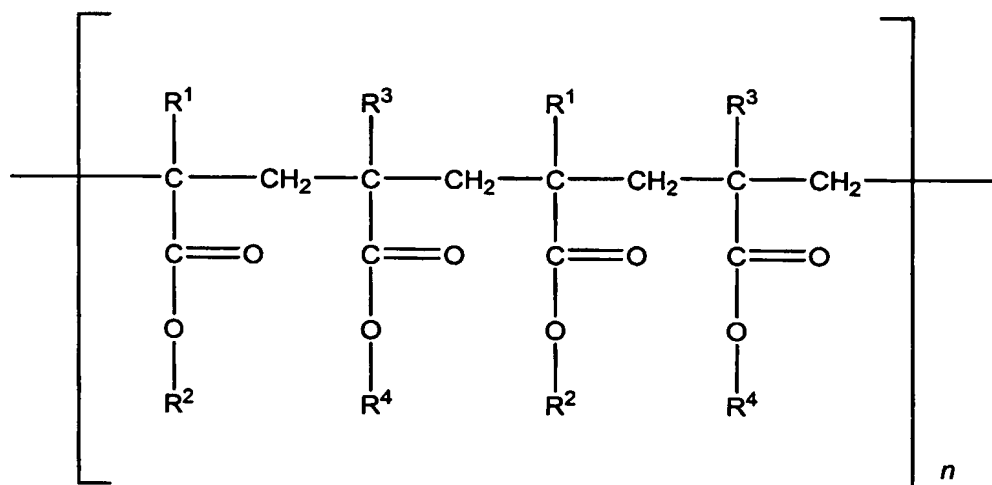
- 1 13. The taste masked pharmaceutical dosage form according to claim 12 wherein the  
2 Eudragit® comprises Eudragit® E-100.
- 1 14. The taste masked pharmaceutical dosage form according to claim 12 wherein the  
2 Eudragit® comprises Eudragit® EPO.
- 1 15. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 dosage form further comprises other additives.
- 1 16. The taste masked pharmaceutical dosage form according to claim 15 wherein the  
2 additives comprise one or more of cellulose ester, talc, magnesium stearate and  
3 pigments.
- 1 17. The taste masked pharmaceutical dosage form according to claim 16 wherein the  
2 cellulose ester comprises one or more of cellulose acetate, cellulose acetate  
3 butyrate, cellulose triacetate, ethyl cellulose and mixtures thereof.
- 1 18. The taste masked pharmaceutical dosage form according to claim 1 wherein a drug  
2 solution/dispersion is coated onto a water soluble or insoluble inert core.
- 1 19. The taste masked pharmaceutical dosage form according to claim 18 wherein the  
2 water soluble or insoluble inert core comprises one or more of directly  
3 compressible dibasic calcium phosphate, directly compressible sugar,  
4 microcrystalline cellulose, and nonpareil sugar seeds.
- 1 20. The taste masked pharmaceutical dosage form according to claim 19 wherein the  
2 inert core comprises directly compressible mannitol.
- 1 21. The taste masked pharmaceutical dosage form according to claim 18 wherein the  
2 inert core has a particle size greater than about 100 microns.
- 1 22. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2 dosage form is selected from the group consisting of sprinkles, chewable tablets,  
3 mouth dissolving tablets, water dispersible tablets, effervescent tablets and  
4 suspensions.

- 1        23. The taste masked pharmaceutical dosage form according to claim 1 wherein the  
2        dosage form further comprises one or more pharmaceutically inert excipients.
- 1        24. The taste masked pharmaceutical dosage form according to claim 23 wherein the  
2        one or more pharmaceutically inert excipient comprise one or more of diluents,  
3        binders, disintegrants, coloring agents, flavoring agents, stabilizers, surfactants,  
4        lubricants, glidants, plasticizers and preservatives.
- 1        25. A process for the preparation of a taste masked dosage form of one or more  
2        unpleasant tasting drugs, the process comprising:  
3                dissolving or dispersing one or more drugs and one or more cationic  
4                polymers in a solvent; and  
5                loading a solution and/or dispersion of one or more drugs and one or more  
6                cationic polymer onto an inert core  
7                wherein the one or more cationic polymers are synthesized from  
8                dimethylaminoethyl methacrylate and neutral methacrylic acid esters and the wt/wt  
9                ratio of the drug to polymer in the dosage form is less than about one to two.
- 1        26. The process according to claim 25 wherein the loading of the drug  
2        solution/dispersion over the inert core is carried out by one or more of granulation,  
3        spray coating or coacervation technique.
- 1        27. The process according to claim 25 wherein the loading of the drug  
2        solution/dispersion over the inert core is carried out by spray coating.
- 1        28. The process according to claim 25 wherein the loading of the drug  
2        solution/dispersion over the inert core is carried out by granulation.
- 1        29. The process according to claim 25 wherein the loading of the drug  
2        solution/dispersion over the inert core is carried out by coacervation.
- 1        30. The process according to claim 25 wherein the solvent comprises one or more of  
2        acetone, methanol, ethyl alcohol, isopropyl alcohol, water, n-butyl alcohol,  
3        propylene glycol, ethylene glycol, monobutyl ether, methyl ethyl ketone,  
4        cyclohexanone, methylene chloride, chloroform, carbon tetrachloride,

trichloroethylene, tetrachloroethylene, ethyl acetate, n-butyl acetate, propylene glycol acetate, toluene and mixtures thereof.

31. The process according to claim 25 wherein the cationic polymer includes a dimethylaminoethyl group.

32. The process according to claim 25 wherein the cationic polymer has the following formula:



where:  $R^1 = R^3 = \text{CH}_3$   
 $R^2 = \text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$   
 $R^4 = \text{CH}_3, \text{C}_4\text{H}_9.$

33. The process according to claim 25 wherein the cationic polymer comprises a polymer commercially available as Eudragit®.

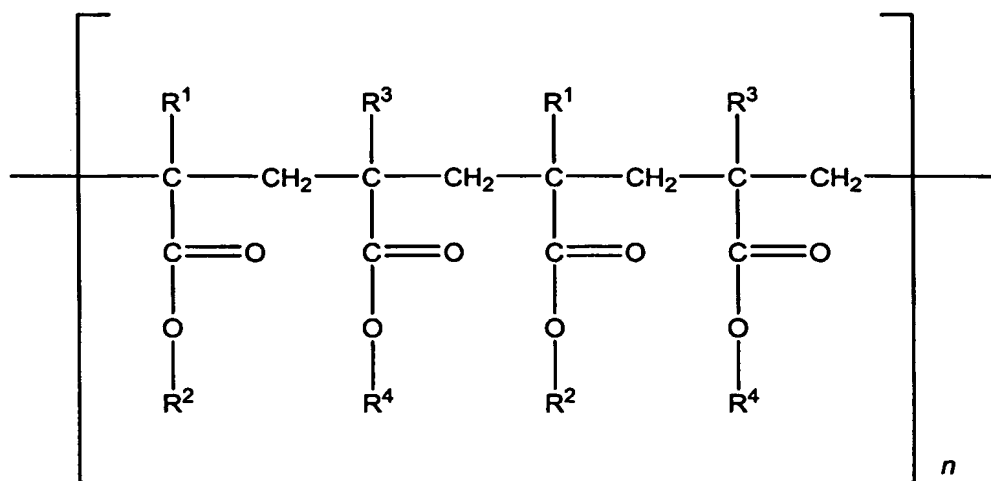
34. The process according to claim 25 wherein the Eudragit® comprises one or both of Eudragit® E-100 and Eudragit® EPO.

35. A taste masked pharmaceutical dosage form comprising:  
 an inert core;  
 one or more drugs; and  
 one or more cationic polymers,  
 wherein one or more cationic polymers are synthesized from dimethylaminoethyl methacrylate and neutral methacrylic acid esters, the one or more drugs and the

one or more cationic polymers form a layer around the inert core, and the wt/wt ratio of the drug to polymer in the dosage form is less than about one to two.

36. The taste masked pharmaceutical dosage form according to claim 35 wherein the cationic polymer includes a dimethylaminoethyl group.

37. The taste masked pharmaceutical dosage form according to claim 35 wherein the cationic polymer has the following formula:



where:  $R^1 = R^3 = \text{CH}_3$

$R^2 = \text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$

$R^4 = \text{CH}_3, \text{C}_4\text{H}_9$ .

38. The taste masked pharmaceutical dosage form according to claim 35 wherein the cationic polymer comprises a polymer commercially available as Eudragit®.

39. The taste masked pharmaceutical dosage form according to claim 35 wherein the Eudragit® comprises one or both of Eudragit® E-100 and Eudragit® EPO.

40. The taste masked pharmaceutical dosage form according to claim 35 wherein the inert core comprises one or more of directly compressible dibasic calcium phosphate, directly compressible sugar, microcrystalline cellulose, and nonpareil sugar seeds.